

# Intro to Node & npm

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# Intro to Node & npm

What is Node.js?

What is npm?

Throughout the talk:

- Command Line
- Chrome Developer Tools

# What is Node.js?

“Asynchronous event driven Javascript runtime designed to build scalable network applications”

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“Asynchronous event driven Javascript runtime  
designed to build scalable network applications”

Javascript is single-threaded.

# Blocking vs Nonblocking

## Blocking

Execution of Javascript code must wait for an operation to complete before moving on.

These are synchronous operations.

# Blocking vs Non-blocking

## Non-blocking

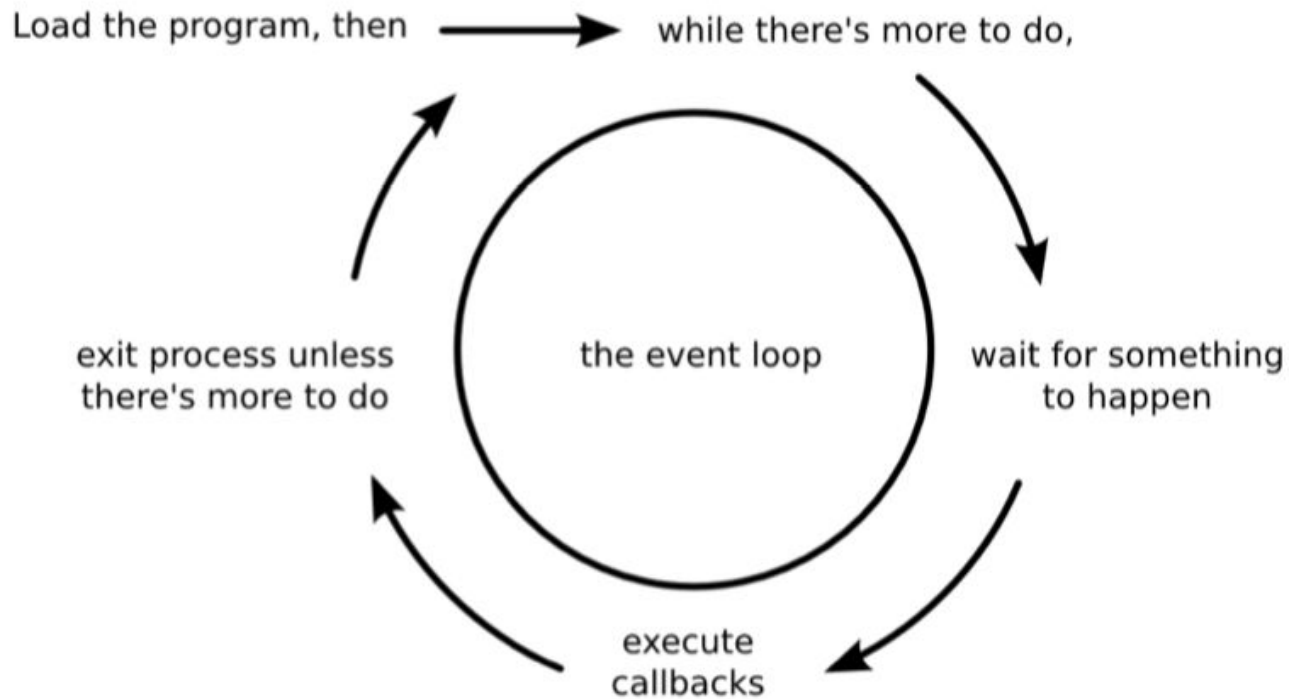
Execution of Javascript I/O code that relies on callbacks.

These are asynchronous operations.

# What is Node.js?

“Asynchronous event driven Javascript runtime  
designed to build scalable network applications”





From "Node.js the Right Way" by Jim R. Wilson

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## Node.js runtime

- Built on top of Chrome's V8 Engine
- Uses ECMAScript 2015 (and beyond)
  - aka ES2015
  - aka ES6
- <http://node.green/>

# What is Node.js?

“Asynchronous event driven Javascript runtime designed to build scalable network applications”

“Isomorphic Javascript”

Same code run on both server (Node.js)  
and client (Browser)

# “Isomorphic Javascript”

- Faster meaningful paint
- SEO
- Maintainability

# Concurrency

- Remember blocking vs non-blocking?
- Threads vs Events
  - Threads require context switching
  - Threads are limited by the number of processes

# What is npm?

- Predominant package manager for Node.js
- Open source project created in 2009 to help developers share Javascript modules
- Accessed via command line
- Package.json
  - Semantic versioning (semver)



# Sidenote in npm history

March 2016

- “left-pad” module removed by author due to a naming dispute
- Resulted in worldwide havoc for three hours
- npm changed policies as a result
- Author’s rationale
- Kik’s response

# References & Resources

Node.js

Blocking vs non-blocking

npm

Can I Use

Mozilla Developer Network (MDN)

Event Loop

Modern JS Cheatsheet